



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0249; Directorate Identifier 2016-NM-138-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 757-200, -200PF, and -200CB series airplanes. This proposed AD was prompted by reports of slats disbonding on airplanes on which the terminating actions of AD 2005-07-08 had been performed. We have also received reports of slats disbonding on airplanes outside of the applicability of AD 90-23-06, AD 91-22-51, and AD 2005-07-08. This proposed AD would require determining the type of trailing edge slat wedges of the leading edge slats, repetitive inspections for disbonding on certain trailing edge slat wedges, and corrective actions, if necessary. This proposed AD would also provide an optional terminating action for the repetitive inspections. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0249.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0249; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Lu Lu, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6577; fax: 425-917-6478; email: lu.lu@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2017-0249; Directorate Identifier 2016-NM-138-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We have received reports of slats disbonding on airplanes on which the terminating actions of AD 2005-07-08, Amendment 39-14032 (70 FR 16403, March 31, 2005), had been performed. We have also received reports of slats disbonding on airplanes outside of the applicability of AD 90-23-06, Amendment 39-6794 (55 FR 46499, November 5, 1990); AD 91-22-51, Amendment 39-8129 (57 FR 781, January 9, 1992); and AD 2005-07-08. Inspection of submitted damaged trailing edge slat wedges indicated that the panels had been contaminated with moisture ingress, as there was evidence of aluminum oxide powder on the core, and the adhesive had failed at the skin-to-core bondline. It is suspected that there was incomplete removal of moisture and honeycomb core corrosion during the repair of the trailing edge slat wedges or that moisture had previously migrated into the panel and was subsequently sealed inside.

One operator reported major skin-to-core disbonding of a trailing edge slat wedge when the airplane had accumulated 42,603 total flight hours and 9,808 total flight cycles. Another operator reported the departure of a trailing edge slat wedge during flight when the airplane had accumulated 47,470 total flight hours and 17,579 total flight cycles.

We are proposing this AD to prevent delamination of the trailing edge slat wedges of the leading edge slats. This delamination could cause loss of pieces of the trailing edge slat wedge assemblies during flight, reduction of the maneuver and stall margins, and consequent reduced controllability of the airplane.

Related Service Information under 1 CFR part 51

We reviewed Boeing Special Attention Service Bulletin 757-57-0066, Revision 1, dated June 7, 2016 (“SASB 757-57-0066, R1”). The service information describes procedures for doing inspections on trailing edge slat wedges of the leading edge slats for areas of skin-to-core and aft edge disbonding, and corrective actions including replacement of certain slat wedges. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA’s Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under “Differences Between this Proposed AD and the Service Information.” For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0249.

The phrase “related investigative actions” is used in this proposed AD. Related investigative actions are follow-on actions that (1) are related to the primary action, and (2) further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

The phrase “corrective actions” is used in this proposed AD. Corrective actions correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

Differences Between this Proposed AD and the Service Information

SASB 757-57-0066, R1, specifies to contact the manufacturer for certain instructions, but this proposed AD would require using repair methods, modification deviations, and alteration deviations in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

Costs of Compliance

We estimate that this proposed AD affects 469 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections	Up to 24 work-hours X \$85 per hour = \$2,040 per inspection cycle	\$0	Up to \$2,040 per inspection cycle	Up to \$956,760 per inspection cycle

We estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspections. We have no way of determining the number of aircraft that might need these replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Wedge replacement (per wedge)	43 work-hours X \$85 per hour = \$3,655	Up to \$84,636	Up to \$88,291

The on-condition costs are an estimate of the cost of replacing a type A wedge with a type B wedge, which is a terminating action for the required inspections. There are up to 10 wedge assemblies per airplane, and the price range for a new assembly is \$50,923 to \$84,636 based on the information provided by Boeing.

The cost of repairing a type A wedge cannot be estimated because damage type and size may vary widely.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2017-0249; Directorate Identifier 2016-NM-138-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD affects AD 90-23-06, Amendment 39-6794 (55 FR 46499, November 5, 1990) (“AD 90-23-06”); AD 91-22-51, Amendment 39-8129 (57 FR 781, January 9, 1992) (“AD 91-22-51”); and AD 2005-07-08, Amendment 39-14032 (70 FR 16403, March 31, 2005) (“AD 2005-07-08”).

(c) Applicability

This AD applies to all The Boeing Company Model 757-200, -200PF, and -200CB series airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 57, Wings.

(e) Unsafe Condition

This AD was prompted by reports of slats disbonding on airplanes on which the terminating actions of AD 2005-07-08 had been performed. We have also received reports of slats disbonding on airplanes outside of the applicability of AD 90-23-06, AD 91-22-51, and AD 2005-07-08. We are issuing this AD to prevent delamination of the trailing edge slat wedges of the leading edge slats. This delamination could cause loss of pieces of the trailing edge slat wedge assemblies during flight, reduction of the maneuver and stall margins, and consequent reduced controllability of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection to Determine Slat Wedge Type

At the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 757-57-0066, Revision 1, dated June 7, 2016 (“SASB

757-57-0066, R1”), except as specified in paragraph (j)(1) of this AD: Inspect each trailing edge slat wedge of the leading edge slats in accordance with Appendices A, B, C, and D of SASB 757-57-0066, R1, or review the airplane maintenance records, to determine whether the slat wedge is a type A or a type B. If a maintenance records review cannot conclusively determine a slat wedge is a type B, it must be assumed to be a type A slat wedge or a physical inspection must be done as specified in this paragraph.

(h) Type A Slat Wedge Repetitive Inspections, Related Investigative Actions, and Corrective Actions

For each type A trailing edge slat wedge found during the inspection or records review required by paragraph (g) of this AD: At the applicable time specified in paragraph 1.E., “Compliance,” of SASB 757-57-0066, R1, except as specified in paragraph (j)(1) of this AD, do an ultrasonic low frequency bond test inspection, a tap test inspection, or a through transmission ultrasonic (TTU) inspection for skin-to-core disbonds of the honeycomb area of the trailing edge slat wedge; do a detailed inspection for aft edge disbonds of the aft edge of the trailing edge slat wedge; do a general visual inspection for any previously accomplished repair; and do all applicable related investigative and corrective actions; in accordance with the Accomplishment Instructions of SASB 757-57-0066, R1, except as specified in paragraphs (i) and (j)(2) of this AD. Do all applicable related investigative and corrective actions at the applicable time specified in paragraph 1.E., “Compliance,” of SASB 757-57-0066, R1. Repeat the applicable inspections on each type A trailing edge slat wedge thereafter at the applicable intervals specified in paragraph 1.E., “Compliance,” of SASB 757-57-0066, R1.

(i) Repaired Type A Slat Wedge Repetitive Inspections, Related Investigative Actions and Corrective Actions

(1) For each type A trailing edge slat wedge with any class 1 disbond repair or any previously accomplished repair subject to the Part 2 inspection as identified in SASB 757-57-0066, R1: At the applicable time specified in paragraph 1.E., “Compliance,” of

SASB 757-57-0066, R1, do an ultrasonic low frequency bond test inspection, a tap test inspection, or a TTU inspection for skin-to-core disbonds in the repaired area of the trailing edge slat wedge; and do all applicable related investigative and corrective actions; in accordance with the Accomplishment Instructions of SASB 757-57-0066, R1, except as specified in paragraph (j)(2) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the applicable inspection on each type A trailing edge slat wedge thereafter at the applicable interval specified in paragraph 1.E., “Compliance,” of SASB 757-57-0066, R1.

(2) For each type A trailing edge slat wedge with any time-limited class 2 disbond repair as identified in SASB 757-57-0066, R1: At the applicable time specified in paragraph 1.E., “Compliance,” of SASB 757-57-0066, R1, do a detailed inspection for any peeling or deterioration of the aluminum foil tape of the repaired area on the trailing edge slat wedge; and do all applicable related investigative and corrective actions; in accordance with the Accomplishment Instructions of SASB 757-57-0066, R1, except as specified in paragraph (j)(2) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the applicable inspection on each type A trailing edge slat wedge thereafter at the applicable interval specified in paragraph 1.E., “Compliance,” of SASB 757-57-0066, R1, until a permanent repair is done to complete the actions required for the time-limited class 2 disbond repair, specified as corrective actions in paragraph (h) of this AD.

(3) For each type A trailing edge slat wedge with any permanent class 2 disbond repair as identified in SASB 757-57-0066, R1: At the applicable time specified in paragraph 1.E., “Compliance,” of SASB 757-57-0066, R1, do an ultrasonic low frequency bond test inspection or a TTU inspection for any disbonding of the aft edge repaired areas; a detailed inspection for disbonds along the aft edge of the repaired areas; and do all applicable related investigative and corrective actions; in accordance with the

Accomplishment Instructions of SASB 757-57-0066, R1, except as specified in paragraph (j)(2) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the applicable inspection on each type A trailing edge slat wedge thereafter at the applicable interval specified in paragraph 1.E., “Compliance,” of SASB 757-57-0066, R1.

(4) For each type A trailing edge slat wedge with any class 3 or class 4 disbond repair, or any previously accomplished repair subject to Part 5 inspection as identified in SASB 757-57-0066, R1: At the applicable time specified in paragraph 1.E., “Compliance,” of SASB 757-57-0066, R1, do the applicable actions specified in paragraphs (i)(4)(i) and (i)(4)(ii) of this AD.

(i) For any class 3 disbond repair with a repair doubler common to the aft edge of the trailing edge slat wedge; for any previously accomplished repair with a repair doubler common to the aft edge of the trailing edge slat wedge; and for any class 4 disbond repair: Do an ultrasonic low frequency bond test inspection or a TTU inspection for any disbonding of the aft edge repaired areas; a detailed inspection for disbonds along the aft edge of the repaired areas; and do all applicable related investigative and corrective actions; in accordance with the Accomplishment Instructions of SASB 757-57-0066, R1, except as specified in paragraph (j)(2) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the applicable inspection on each type A trailing edge slat wedge thereafter at the applicable interval specified in paragraph 1.E., “Compliance,” of SASB 757-57-0066, R1.

(ii) For any class 3 disbond repair without a repair doubler common to the aft edge of the trailing edge slat wedge; and for any previously accomplished repair without a repair doubler common to the aft edge of the trailing edge slat wedge: Do an ultrasonic low frequency bond test inspection, a tap test inspection, or a TTU inspection for skin-to-core disbonds of the honeycomb area of the trailing edge slat wedge in the repaired area;

and do all applicable related investigative and corrective actions; in accordance with the Accomplishment Instructions of SASB 757-57-0066, R1, except as specified in paragraph (j)(2) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the applicable inspection on each type A trailing edge slat wedge thereafter at the applicable interval specified in paragraph 1.E., “Compliance,” of SASB 757-57-0066, R1.

(j) Exceptions to Service Information

(1) Where paragraph 1.E., “Compliance,” of SASB 757-57-0066, R1, specifies a compliance time “after the Revision 1 date of this service bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) If any disbonding is found during any inspection required by this AD, and SASB 757-57-0066, R1, specifies to contact Boeing for appropriate action: Before further flight, repair the disbonding using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

(k) Optional Terminating Action for Repetitive Inspections

Replacing a type A trailing edge slat wedge with a type B trailing edge slat wedge in accordance with the Accomplishment Instructions of SASB 757-57-0066, R1, terminates the repetitive inspections required by this AD for the replaced wedge.

(l) Terminating Action for Certain Other ADs

Accomplishing the initial inspections required by paragraphs (g) and (h) of this AD on a trailing edge slat wedge terminates all the requirements of AD 90-23-06, AD 91-22-51, and AD 2005-07-08 for that slat wedge.

(m) Parts Installation Limitation

As of the effective date of this AD: A replacement type A wedge may be installed provided that the initial and repetitive inspections specified in paragraph (h) and (i) of this AD are done within the applicable compliance times specified in paragraph (h)

and (i) of this AD and all applicable related investigative and corrective actions are done within the applicable compliance times specified in paragraphs (h) and (i) of this AD.

(n) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (o)(1) of this AD. Information may be emailed to:

9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) Except as required by paragraph (j)(2) of this AD: For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (n)(4)(i) and (n)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is labeled “RC Exempt,” then the RC requirement is removed from that step or substep. An

AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(o) Related Information

(1) For more information about this AD, contact Lu Lu, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle ACO, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6478; fax: 425-917-6590; email: lu.lu@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on April 5, 2017.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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